WHAT IS CLAIMED IS:

1. A high dielectric constant composite material having a dielectric constant of 15 or above, comprising an organic resin and, dispersed therein, an inorganic filler containing a metal powder as its essential component.

2. A high dielectric constant composite material according to Claim 1, wherein the composite material has a dielectric loss tangent in the frequency region of from 100 MHz to 80 GHz of 0.1 or less.

3. A high dielectric constant composite material according to Claim 1, wherein each component of the inorganic filler containing a metal powder as its essential component has an average particle size of 5 μm or less.

4. A high dielectric constant composite material according to claim 1, wherein the inorganic filler containing a metal powder as its essential component includes agglomerates, and the agglomerates of the inorganic filler has an average particle size of 5 μm or less.

5. A high dielectric constant composite material according to claim 1, wherein the metal powder has a metallic covering layer on the surface thereof with a thickness of 1000 to 1 nm, and a metal for covering being at least one member selected from the group consisting of Cr, Cd, Zn, Mn and Fe.

6. A high dielectric constant composite material

according to Claim 1, wherein the inorganic filler contains as its essential component a metal powder subjected to an insulation treatment.

7. A high dielectric constant composite material according to Claim 6, wherein said insulation treatment is a chemical treatment using an inorganic salt.

8. A high dielectric constant composite material according to Claim 1, wherein the inorganic filler uses a metal oxide together with the metal powder.

9. A high dielectric constant composite material according to Claim 1, wherein said metal powder is a powder of an element of Group 1B, 2B, 3B, 4B, 5B, 6B, 7B, 8, 2A, 3A, 4A or 5A (excluding boron, carbon, nitrogen, phosphorus and arsenic) or an alloy thereof.

10. A high dielectric constant composite material according to Claim 7, wherein said metal powder is powder of Al, Mn, Si, Mg, Cr, Nb, Ni, Mo, Cu, Fe, W, Zn, Sn, Pb, Ag, Ti, Zr, Ta, Pt, Sb or an alloy thereof.

11. A multilayer wiring board having formed in its circuit a capacitor comprising a dielectric layer disposed between electrodes, said capacitor being made of a high dielectric constant composite material having a dielectric constant of 15 or above and comprising an organic resin and, dispersed therein, an inorganic filler containing as its essential component a metal powder subjected to a surface insulating treatment.

12. A module substrate having at least a built-in capacitor and mounting semiconductor chips, said

capacitor being made of a high dielectric constant composite material having a dielectric constant of 15 or above and comprising an organic resin and, dispersed therein, an inorganic filler containing as its essential component a metal powder subjected to a surface insulating treatment.